

Application Serial No. 10/589,522  
Reply to office action of January 28, 2009

PATENT  
Docket: CU-5003 RJS

### **REMARKS/ARGUMENTS**

Reconsideration is respectfully requested.

Claims 1-23 are pending before this amendment. By the present amendment, claims 1-22 are amended. No new matter has been added.

**In the office action (page 2), claims 1, 5-6, 9-10, 14-16 and 21-23 are objected to because of informalities.**

In response, the applicant has amended the claims to overcome the objections. The applicant respectfully submits that all grounds for objection have been overcome, and requests withdrawal of the aforementioned objections to the claims.

**In the office action (page 4), claims 1-12 and 21-23 stand rejected under 35 U.S.C. § 102(e) as being unpatentable by U.S. Patent Application Publication No. 2004/010901 (Fang). The "et al." suffix is omitted in a reference name.**

The applicants respectfully disagree.

Firstly, applicant submits that the Examiner has taken completely elements of Fang to be equivalents of the same element of claim 1.

For example, the Examiner alleges that the Optical Network Element (ONE) 600 and ONE 605 of Fang anticipate the two switches of claim 1, while also alleging that OADM device 30 in Fang Fig. 1 discloses the switch of claim 1.

The Examiner's attention is respectfully drawn to paragraphs [0006] and [0020] of Fang. Paragraph [0006] (middle) recites "**A ONE node contains two bi-directional OADM modules...The ONE node also has four optical multiplexer-demultiplexer (OMUX/ODMUX) pairs.**" Paragraph [0020] (second sentence) recites "the three **conventional** OADMs in the previous arts...are shown in Fig. 1A...The **OADM 30**..."

As shown above, it is clear that the ONEs 600, 605 and OADM 30 are completely different things. The applicants respectfully submit that is improper for the Examiner to take these two different elements as equivalents of the switches of claim 1.

Furthermore, the applicant submits that neither the OADM 30 nor the ONE 600, 605 of Fang disclose the claimed two switches of claim 1.

With regard to the OADM 30 of Fang, claim 1 clearly defines the connection relationships of the two switches of claim 1 with the downlink direction, uplink direction

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of the working path, and the backup path. The OADM 30 of Fang at best shows an OADM receiving signals from a fiber on the west and outputs signals to the fiber on the east. As such, the OADM 30 of Fang clearly fails to disclose all the limitations of claim 1, specifically, the OADM 30 of Fang cannot teach the claimed "two switches."

With regard to the ONE 600, 605 of Fang, the applicant respectfully submits the first switch and second switch of claim 1 are not taught by the ONE 600, 605 of Fang

The Examiner alleges that Fang discloses the two switches each of which have two input ports and one output port citing Fang Fig. 10, 710, 720, 750, 760.

The applicant respectfully disagrees. In Fang, it is clear that 710, 720, 750, 760 are **bi-directional** ports having both input and output at each port. In contradistinction, the port of claim 1 is **either** an input port **or** an output port. That is, the ports of the presently claimed invention are **unidirectional** ports, **not bi-directional ports**.

To clarify the present invention of claim 1, claim 1 has been amended, inter alia, as follows:

—a first and a second switch, each of the first switch and the second switch has two unidirectional input ports and one unidirectional output port, and one of the input ports of the first switch is connected to the output port of the first switch under the control of the first switch, one of the input ports of the second switch is connected to the output port of the second switch under control of the second switch—

Support for the above amendment is found at least in the specification page 15, lines 15-26 thus no new matter has been added.

Accordingly, Fang fails to disclose the two unidirectional input ports and one output port of the two switches of presently amended claim 1. The ONE 600, 605 of Fang fail to disclose the claimed switches of claim 1 for at least the foregoing reason.

The Examiner also alleges that Fig. 6 of Fang "shows switch with west side and east side OADMs where 400 is a west side OADM and input port 410 is connected to downlink working path transceiver", teaches the "one input port of the first switch connects to a downlink direction of the working path" of claim 1.

The applicant respectfully disagrees.

First, the port 410 of Fang is a **bi-directional** port, whereas the input port claim 1 is a **--unidirectional port--**. Therefore, the input port of claim 1 is clearly not taught by

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the port 410 of Fang.

In addition, according to claim 1 as amended an **—input port** of the first switch connects to and receives downlink service signals from a downlink direction of the working path—. Fig. 6 of Fang at best shows that port 410 receives signals **from a fiber on the west**. It is obvious from Fig. 6 of Fang that the **bi-directional port 410** receives signals from the fiber on the west and transmits the signals to the working Drop port 415 in one direction, and receives signals from the working Add port 415 and outputs the signals to the fiber on the east in the other direction. Since the present invention of claim 1 includes the **—unidirectional port—**, only the input direction of port 410 of Fang is relevant to the input port of claim 1. The applicants respectfully note that when receiving using as an input port, port 410 of Fang **does not receive any signals from west-side working OMUX/ODMUX 440**.

In view of the above, the applicants respectfully submit that Fang does not teach the claimed feature **—the input port of the first switch connects to and receives downlink service signals from a downlink direction of the working path— of claim 1.**

Further, the applicants submits that Fang also fails to disclose the following features of claim 1:

**—the other input port of the first switch connects to and receives the downlink service signals from a downlink direction of the backup path, and the output port of the first switch connects and outputs the downlink service signals to a local drop path;**

**one input port of the second switch connects to and receives uplink service signals from a local add path, the other input port of the second switch connects to and receives the downlink service signals from the downlink direction of the backup path and the output port of the second switch connects to an uplink direction of the backup path; and**

**the local add path is connected with an uplink direction of the working path at the same time—**

Support for the above amendment is found at least in the specification page 8, lines 18-24 and FIG. 1, thus no new matter has been added.

In view of the above, the applicant submits that Fang fails to teach each and every element of the present invention of claim 1 at least the reasons above.

Accordingly, withdrawal of the rejection of claim 1 under 35 USC 102(e) and an

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indication of allowable subject matter is respectfully requested.

As to independent claims 5, 9 and 21, claims 5, 9, and 21 include the features of claim 1 which are considered to be allowable for the reasons above, and therefore the applicant submits that claims 5, 9 and 21 are allowable over Fang for at least the same reasons put forth above with regard to claim 1. Therefore, withdrawal of the rejections of claims 5, 9 and 21, and an indication of allowable subject matter is respectfully requested.

**In the office action (page 9), claims 13-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fang in view of U.S. Patent No. 7,356,258 (Waverka).** The "et al." suffix is omitted in a reference name.

Claim 13 is system claim including corresponding features of claims 1, 5 and 9. The applicants respectfully submit that Fang fails to disclose all the technical features of claim 13 for at least the foregoing reasons regarding claim 1.

Further, the applicant submits that Waverka also fails to disclose the features of claim 13 as described above.

The Examiner alleges that Waverka discloses in Figure 17A and 17B "working path", "protection path", which reveals the feature "one input port of the first switch connects to a downlink direction of the working path, the other input port connects to the downlink direction of the backup path, and the output port connects to a local drop path" of claim 13.

Firstly, applicant respectfully notes that **each and every** limitation in the claim must be considered. Therefore, the applicant disagrees with the Examiner's allegation that the features "one input port of the first switch connects to a downlink direction of the working path, the other input port connects to the downlink direction of the backup path, and the output port connects to a local drop path" of claim 1 is disclosed by Waverka merely because Waverka discloses a "working path" and a "backup path".

Similarly, it is also not appropriate for the Examiner to allege that the features "the input port of the second switch connects to the downlink direction of the backup path, the output port connects to the uplink direction of the backup path" of claim 13 merely because Waverka discloses the "working path" and the "protection path" in

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Figures 17A and 17B.

In addition, applicant submits that Waverka at best discloses an apparatus for diversely routing optical wavelengths across a point-to-point sub-network, because Waverka **fails to disclose** all the limitations of claim 13.

Neither Fang nor Waverka, whether considered alone or in combination, teaches or even suggests the technical features of claim 13 as described above. Accordingly, withdrawal of the rejections of claim 13 and an indication of allowable subject matter is respectfully requested.

As to claims 1-4, 6-8, 10-12, 14-20 and 22-23, the applicant respectfully submits that these claims should be allowable at least since they depend from one of claims 1, 5, 9, 13, and 21, which are considered to be in condition for allowance for the reasons above.

For the reasons set forth above, the applicant respectfully submits that claims 1-23, pending in this application, are in condition for allowance over the cited references. Accordingly, the applicant respectfully requests reconsideration and withdrawal of the outstanding rejections and earnestly solicits an indication of allowable subject matter.

This amendment is considered to be responsive to all points raised in the office action. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

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